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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|--|-----------------|----------------------|-------------------------|------------------|--|
| 10/520,655 | 03/07/2005 | Otto Dideberg | 1169-033 9355 | | |
| 22429 | 7590 09/28/2006 | | EXAMINER | | |
| LOWE HAUPTMAN BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314 | | | GANGLE, BRIAN J | | |
| | | | ART UNIT | PAPER NUMBER | |
| | | | 1645 | | |
| | | | DATE MAILED: 09/28/2006 | 6 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | Applicant(s) | | | |
|---|---|--|--|--|--|--|
| | | 10/520,655 | DIDEBERG ET AL. | | | |
| | Office Action Summary | Examiner | Art Unit | | | |
| | | Brian J. Gangle | 1645 | | | |
| | The MAILING DATE of this communication app | ears on the cover sheet with the c | orrespondence address | | | |
| Period fo | • • | / IC CET TO EVEIDE 4 MONTH | C) OD TUIDTY (20) DAVC | | | |
| WHIC - Exter after - If NO - Failu Any | ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATES and the may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. It period for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tirr rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | |
| Status | | | | | | |
| 1)⊠ | Responsive to communication(s) filed on 10 Ja | nuary 2005. | | | | |
| 2a) <u></u> ☐ | This action is FINAL. 2b) This action is non-final. | | | | | |
| 3) 🗌 | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Dispositi | on of Claims | | | | | |
| 4)⊠ Claim(s) <u>23-46</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| | Claim(s) is/are allowed. | | | | | |
| • | Claim(s) is/are rejected. | | | | | |
| | Claim(s) is/are objected to. | -1 | | | | |
| 8)[🔀 | Claim(s) 23-46 are subject to restriction and/or | election requirement. | | | | |
| Applicati | on Papers | | | | | |
| 9)[| The specification is objected to by the Examine | r. | | | | |
| 10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. | | | | | | |
| | Applicant may not request that any objection to the | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) | The oath or declaration is objected to by the Ex | aminer. Note the attached Office | Action or form PTO-192. | | | |
| Priority (| ınder 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a) All b) Some * c) None of: | | | | | | |
| | 1. Certified copies of the priority documents have been received. | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | 2 | • | | | | |
| Attachmen | ot(s) | _ | | | | |
| | ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) | 4) 🔲 Interview Summary Paper No(s)/Mail D | | | | |
| 3) Infor | mation Disclosure Statement(s) (PTO/SB/08) er No(s)/Mail Date | 5) Notice of Informal F | | | | |

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DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 23-33 and 48, in part, drawn to a recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein.

Group II, claim(s) 34 and 48, in part, drawn to antibodies against a recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein.

Group III, claim(s) 35, 39-43, and 48, in part, drawn to nucleic acid molecules which encode a recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein, and vectors comprising said nucleic acids.

Group IV, claim(s) 36-38 and 48, in part, drawn to primers that can amplify the sequences encoding PBP2x.

Group V, claim(s) 44-45, drawn to methods for screening antibiotics by detecting binding of a test compound with a recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein.

Group VI, claim(s) 46-47, drawn to methods for identifying antibiotics by determining the three-dimensional structure of a recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein, and identifying compounds capable of binding to said protein.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

There appears to be no special technical feature linking Groups I-VI.

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The special technical feature of Group I is the specific amino acid sequence of a given recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein and the biochemical and immunological properties of said protein.

The special technical feature of Group II is the specific amino acid sequence of a given antibody and the biochemical and immunological properties of said antibody.

The special technical feature of Group III is the specific nucleotide sequence of a nucleic acid encoding a given recombinant protein which comprises concatenated fragments of the *Streptococcus pneumoniae* PBP2x protein.

The special technical feature of Group IV is the specific nucleotide sequence of a given primer.

The special technical feature of each of Groups V-VI is the specific active steps and reagents used in each method.

Pursuant to 37 CFR 1.475(d), the ISA/US considers that where multiple products and processes are claimed, the main invention shall consist of the first invention of the category first mentioned in the claims and the first recited invention of each of the other categories related thereto. Accordingly, the main invention (Group I) comprises the first recited **composition**, nucleic acids, host cells, and vaccines. Further pursuant to 37 CFR 1.475(d), the ISA/US considers that any feature which the subsequently recited products and methods share with the main invention does not constitute a special technical feature within the meaning of PCT rule 13.2 and that each of such products and methods accordingly defines a separate invention.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102,

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103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Gangle whose telephone number is (571) 272-1181. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mark Navarro can be reached on (571) 272-0861. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Gangle AU 1645

> ROBERT A. ZEMAN PRIMARY EXAMINER